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IN THE CLAIMS:

Please cancel claims 17 and 19 without prejudice or disclaimer.

E1 6. (Amended) The eukaryotic cell of claim 1 wherein a cytoplasmic part of the chimeric receptor is a cytoplasmic part of at least one interferon receptor subunit.

Am 77
E2 11. (Thrice Amended) A method of screening a compound that inhibits the binding of a ligand with the extracellular part of a chimeric receptor and/or with the signaling pathway of the cytoplasmic part of a chimeric receptor, the method comprising:
providing the eukaryotic cell of claim 1;
contacting said eukaryotic cell with said compound; and
selecting cells in which the cell's reporter system is inactivated.

E3
Am 77
E3 15. (Twice Amended) A method of screening for ligands of an orphan receptor comprising:
providing a eukaryotic cell comprising:
a first recombinant gene encoding a chimeric receptor;
a library of recombinant genes encoding at least one compound, the expression of which creates an autocrine loop;
a reporter system that is activated upon the creation of said autocrine loop;
selecting cells in which the cell's reporter system is activated; and
identifying the ligand corresponding to the at least one compound that activated said autocrine loop.

E4 16. (Amended) The method according to claim 24 wherein said series of compounds comprise genes encoding said antagonists.

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E5

18. (Amended) The method according to claim 15 wherein said ligands are produced by the autocrine loop.

Please add the following new claims:

24. (New) A method of screening for antagonists inhibiting ligand-receptor binding comprising:
providing a eukaryotic cell comprising:
a first recombinant gene encoding a chimeric receptor;
a second recombinant gene encoding a compound, the expression of which creates an autocrine loop;
a reporter system that is activated upon the creation of said autocrine loop;
reacting a series of compounds with said eukaryotic cell;
assaying the inhibiting activity of the ligand-receptor binding of each element of said series of compounds by assaying the deactivation of the reporter system; and
based on said deactivation, determining the presence of an antagonist.

25. (New) A method of screening for antagonists inhibiting ligand-receptor binding comprising:
providing a eukaryotic cell comprising:
a first recombinant gene encoding a chimeric receptor;
a second recombinant gene encoding a compound, the expression of which creates an anti-autocrine loop;
a reporter system that is deactivated upon the creation of said anti-autocrine loop;
assaying the activity of the ligand-receptor binding by assaying the activation of the reporter system; and
determining the presence of an antagonist that creates said anti-autocrine loop by scoring the deactivation of the reporter.

E6